

# LEAK DETECTION DEVICE

**Patent number:** JP2003232826  
**Publication date:** 2003-08-22  
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**Classification:**  
 - International: G01R31/02; G01R27/18; H02H3/34  
 - european:  
**Application number:** JP20020033119 20020208  
**Priority number(s):** JP20020033119 20020208

## Abstract of JP2003232826

<P>PROBLEM TO BE SOLVED: To provide a leak detection device capable of detecting precisely a leak by detecting accurately a resistance component leakage current.

<P>SOLUTION: The output of a zero-phase current transformer is amplified by an amplifier 1, and inputted into a switching element 3 after removing a high frequency component by a first low-pass filter 2. A high frequency component in a line voltage signal of a circuit is removed by a second low-pass filter 4 having the same characteristic as the first low-pass filter 2, and the phase of the output is changed by 90 degrees by a differential circuit 5, and a zero-cross point in an output waveform of the differential circuit 5 is detected by a zero-cross detection circuit 6, and a zero-cross signal is used as a switching signal of a switching element 3. The switching element 3 samples the output signal of the first low-pass filter 2 by the zero-cross signal, and adjusts a sampling value to have the magnitude of the leakage current.

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